	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	46050	antimicrobial	USPAT; EPO; JPO; DERWENT	2003/09/13 10:58			0
2	BRS	L2	3	polyphemusin-like	USPAT; EPO; JPO; DERWENT	2003/09/13 11:00			0
3	BRS	L3	48	polyphemusin	USPAT; EPO; JPO; DERWENT	2003/09/13 11:00			0
4	BRS	L4	19	1 same 3	USPAT; EPO; JPO; DERWENT	2003/09/13 11:00			0
5	BRS	L5	57	hancock adj robert.in.	USPAT; EPO; JPO; DERWENT	2003/09/13 11:01			0
6	BRS	L6	5	zhang adj lijuan.in.	USPAT; EPO; JPO; DERWENT	2003/09/13 11:01			0
7	BRS	L7	1	(5 or 6) and 2	USPAT; EPO; JPO; DERWENT	2003/09/13 11:02			0

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FILE 'MEDLINE' ENTERED AT 11:05:24 ON 13 SEP 2003

FILE 'CAPLUS' ENTERED AT 11:05:24 ON 13 SEP 2003
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FILE 'SCISEARCH' ENTERED AT 11:05:24 ON 13 SEP 2003
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FILE 'AGRICOLA' ENTERED AT 11:05:24 ON 13 SEP 2003

=> s antimicrobial (p) (peptide or polypeptide)
L1        14203 ANTIMICROBIAL (P) (PEPTIDE OR POLYPEPTIDE)

=> s polyphemusin-like
L2            2 POLYPHEMUSIN-LIKE

=> duplicate remove l2
DUPLICATE PREFERENCE IS 'CAPLUS, BIOSIS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L2
L3            2 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=> d l3 1-2 ibib abs

L3   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2002:10505  CAPLUS
DOCUMENT NUMBER:          136:79729
TITLE:                    Antimicrobial peptides and methods of use thereof
INVENTOR(S):              Hancock, Robert E. W.; Zhang, Lijuan
PATENT ASSIGNEE(S):       The University of British Columbia, Can.
SOURCE:                   PCT Int. Appl., 57 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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     WO 2002000687      A2   20020103       WO 2001-CA918    20010627
     WO 2002000687      A3   20020906
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6337317         B1   20020108       US 2000-604864   20000627
     EP 1294745         A2   20030326       EP 2001-944839   20010627
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     US 2002156017      A1   20021024       US 2002-42872    20020108
PRIORITY APPLN. INFO.:                    US 2000-604864   A  20000627
                                          WO 2001-CA918    W  20010627
OTHER SOURCE(S):          MARPAT 136:79729
AB   A class of cationic,   ***polyphemusin***  -  ***like***   peptides having
     antimicrobial activity is provided.  Examples of such peptides include
     FRWCFRVCYKGRCRYKCR (SEQ ID NO:3), RRWCFRVCYKGFCRYKCR (SEQ ID NO:4), and
     RRWCFRVCYRGRFCYRKCR (SEQ ID NO:11) (I).  Also provided are methods for
     inhibiting the growth of microbes such as bacteria, yeast and viruses
     utilizing the peptides of the invention.  The peptides are particularly
     useful for inhibiting endotoxemia in a subject.  I provided protection
     against endotoxemia in mice.
```

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L3   ANSWER 2 OF 2  BIOSIS  COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER:   2002:159736  BIOSIS
DOCUMENT NUMBER:    PREV200200159736
TITLE:              Antimicrobial peptides and methods of use thereof.
AUTHOR(S):          Hancock, Robert E. W. (1); Zhang, Lijuan
CORPORATE SOURCE:   (1) Vancouver Canada
                    ASSIGNEE: The University of British Columbia, Vancouver,
                    Canada
PATENT INFORMATION: US 6337317 January 08, 2002
SOURCE:             Official Gazette of the United States Patent and Trademark
                    Office Patents, (Jan. 8, 2002) Vol. 1254, No. 2, pp. No
                    Pagination. http://www.uspto.gov/web/menu/patdata.html.
                    e-file.
                    ISSN: 0098-1133.
DOCUMENT TYPE:      Patent
LANGUAGE:           English
AB   A class of cationic,   ***polyphemusin***  -  ***like***   peptides having
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     FRWCFRVCYKGRCRYKCR (SEQ ID NO:3), RRWCFRVCYKGFCRYKCR (SEQ ID NO:4), and
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     inhibiting the growth of microbes such as bacteria, yeast and viruses
     utilizing the peptides of the invention. The peptides are particularly
     useful for inhibiting endotoxemia in a subject.


=> d his

     (FILE 'HOME' ENTERED AT 11:04:59 ON 13 SEP 2003)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     11:05:24 ON 13 SEP 2003
L1        14203 S ANTIMICROBIAL (P) (PEPTIDE OR POLYPEPTIDE)
L2            2 S POLYPHEMUSIN-LIKE
L3            2 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=> s polyphemusin
L4          252 POLYPHEMUSIN

=> s hancock robert/au
L5            6 HANCOCK ROBERT/AU

=> s zhang lijuan/au
L6          201 ZHANG LIJUAN/AU

=> s l5 or l6
L7          207 L5 OR L6

=> s l7 and l4
L8            6 L7 AND L4

=> duplicate l8
ENTER REMOVE, IDENTIFY, ONLY, OR (?):remove
DUPLICATE PREFERENCE IS 'CAPLUS, BIOSIS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):remove l8
'REMOVE L50' IS NOT VALID.  PLEASE ENTER 'Y' OR 'N'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L8
L9            4 DUPLICATE REMOVE L8 (2 DUPLICATES REMOVED)

=> d l9 1-4 ibib abs

L9   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2002:10505  CAPLUS
DOCUMENT NUMBER:          136:79729
TITLE:                    Antimicrobial peptides and methods of use thereof
INVENTOR(S):              Hancock, Robert E. W.;   ***Zhang, Lijuan***
PATENT ASSIGNEE(S):       The University of British Columbia, Can.
SOURCE:                   PCT Int. Appl., 57 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     --------------    ----  --------      ---------------  --------
     WO 2002000687      A2   20020103      WO 2001-CA918    20010627
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WO 2002000687 A3 20020906
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6337317 B1 20020108 US 2000-604864 20000627
EP 1294745 A2 20030326 EP 2001-944839 20010627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
US 2002156017 A1 20021024 US 2002-42872 20020108
PRIORITY APPLN. INFO.: US 2000-604864 A 20000627
WO 2001-CA918 W 20010627
OTHER SOURCE(S): MARPAT 136:79729
AB A class of cationic, ***polyphemusin*** -like peptides having antimicrobial activity is provided. Examples of such peptides include FRWCFRVCYKGRCRYKCR (SEQ ID NO:3), RRWCFRVCYKGFCRYKCR (SEQ ID NO:4), and RRWCFRVCYRGRFCYRKCR (SEQ ID NO:11) (I). Also provided are methods for inhibiting the growth of microbes such as bacteria, yeast and viruses utilizing the peptides of the invention. The peptides are particularly useful for inhibiting endotoxemia in a subject. I provided protection against endotoxemia in mice.

L9 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:159736 BIOSIS
DOCUMENT NUMBER: PREV200200159736
TITLE: Antimicrobial peptides and methods of use thereof.
AUTHOR(S): Hancock, Robert E. W. (1); ***Zhang, Lijuan***
CORPORATE SOURCE: (1) Vancouver Canada
ASSIGNEE: The University of British Columbia, Vancouver, Canada
PATENT INFORMATION: US 6337317 January 08, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan. 8, 2002) Vol. 1254, No. 2, pp. No Pagination. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB A class of cationic, ***polyphemusin*** -like peptides having antimicrobial activity is provided. Examples of such peptides include FRWCFRVCYKGRCRYKCR (SEQ ID NO:3), RRWCFRVCYKGFCRYKCR (SEQ ID NO:4), and RRWCFRVCYRGRFCYRKCR (SEQ ID NO:11). Also provided are methods for inhibiting the growth of microbes such as bacteria, yeast and viruses utilizing the peptides of the invention. The peptides are particularly useful for inhibiting endotoxemia in a subject.

L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2001:712236 CAPLUS
DOCUMENT NUMBER: 136:49904
TITLE: Interaction of cationic antimicrobial peptides with model membranes
AUTHOR(S): ***Zhang, Lijuan*** ; Rozek, Annett; Hancock, Robert E. W.
CORPORATE SOURCE: Department of Microbiology and Immunology, University of British Columbia, Vancouver, BC, V6T 1Z3, Can.
SOURCE: Journal of Biological Chemistry (2001), 276(38), 35714-35722
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of natural and synthetic cationic antimicrobial peptides from various structural classes, including .alpha.-helical, .beta.-sheet, extended, and cyclic, were examd. for their ability to interact with model membranes, assessing penetration of phospholipid monolayers and induction of lipid flip-flop, membrane leakiness, and peptide translocation across the bilayer of large unilamellar liposomes, at a range of peptide/lipid rare able to penetrate into monolayers made with neg. charged phospholipids, but only two interacted weakly with neutral lipids. Peptide-mediated lipid flip-flop generally occurred at peptide concns. that were 3- to 5-fold lower than those causing leakage of calcein across

the membrane, regardless of peptide structure. With the exception of two .alpha.-helical peptides V681n and V25p, the extent of peptide-induced calcein release from large unilamellar liposomes was generally low at peptide/lipid molar ratios below 1:50. Peptide translocation across bilayers was found to be higher for the .beta.-sheet peptide ***polyphemusin*** , intermediate for .alpha.-helical peptides, and low for extended peptides. Overall, whereas all studied cationic antimicrobial peptides interacted with membranes, they were quite heterogeneous in their impact on these membranes.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:769951 CAPLUS
DOCUMENT NUMBER: 134:68617
TITLE: Interaction of ***polyphemusin*** I and structural analogs with bacterial membranes, lipopolysaccharide, and lipid monolayers
AUTHOR(S): ***Zhang, Lijuan*** ; Scott, Monisha G.; Yan, Hong; Mayer, Lawrence D.; Hancock, Robert E. W.
CORPORATE SOURCE: Department of Microbiology and Immunology, University of British Columbia, Vancouver, BC, V6T 1Z3, Can.
SOURCE: Biochemistry (2000), 39(47), 14504-14514
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three structural variants (PV5, PV7, and PV8) of the horseshoe crab cationic antimicrobial peptide ***polyphemusin*** I were designed with improved amphipathic profiles. CD spectroscopy anal. indicated that in phosphate buffer ***polyphemusin*** I, PV7, and PV8 displayed the spectrum of a type II .beta.-turn-rich structure, but, like ***polyphemusin*** I, all three variants adopted a typical .beta.-sheet structure in an anionic lipid environment. Both ***polyphemusin*** I and variants were potent broad spectrum antimicrobials that were clearly bactericidal at their minimal inhibitory concns. The variants were moderately less active in vitro but more effective in animal models. Moreover, these variants exhibited delayed bacterial killing, whereas ***polyphemusin*** I killed Escherichia coli UB1005 within 5 min at 2.5 .mu.g/mL. All the peptides showed similar abilities to bind to bacterial lipopolysaccharide (LPS) and permeabilize bacterial outer membranes. Consistent with this was the observation that all peptides significantly inhibited cytokine prodn. by LPS-stimulated macrophages and penetrated polyanionic LPS monolayers to similar extents. None of the peptides had affinity for neutral lipids as evident from both tryptophan fluorescence spectroscopy and Langmuir monolayer anal. As compared to ***polyphemusin*** I, all variants showed reduced ability to interact with anionic lipids, and the hemolytic activity of the variants was decreased by 2-4-fold. In contrast, ***polyphemusin*** I efficiently depolarized the cytoplasmic membrane of Escherichia coli, as assessed using a membrane potential sensitive fluorescent dye 3,3-dipropylthiacarbocyanine (diSC35) assay, but the variants showed a substantially delayed and decreased depolarizing ability. The coincident assessment of cell viability indicated that depolarization of the bacterial cytoplasmic membrane potential by ***polyphemusin*** I occurred prior to lethal damage to cells. Our data suggest that increase of amphipathicity of .beta.-sheet ***polyphemusin*** I generally resulted in variants with decreased activity for membranes. Interestingly, all variants showed an improved ability to protect mice both against infection by Pseudomonas aeruginosa and from endotoxemia.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 11:04:59 ON 13 SEP 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 11:05:24 ON 13 SEP 2003
L1 14203 S ANTIMICROBIAL (P) (PEPTIDE OR POLYPEPTIDE)
L2 2 S POLYPHEMUSIN-LIKE
L3 2 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)
L4 252 S POLYPHEMUSIN
L5 6 S HANCOCK ROBERT/AU
L6 201 S ZHANG LIJUAN/AU
L7 207 S L5 OR L6

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L8              6 S L7 AND L4
L9              4 DUPLICATE REMOVE L8 (2 DUPLICATES REMOVED)

=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY     SESSION
FULL ESTIMATED COST                                   40.16       40.37

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY     SESSION
CA SUBSCRIBER PRICE                                   -2.60       -2.60

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